CLAIMS

1. A nucleic acid molecule comprising a first polynucleotide that comprises a nucleotide sequence chosen from:

(a) SEQ ID NOS.:1-187, 375-484;

(b) a polynucleotide encoding a polypeptide comprising an amino acid sequence chosen from SEQ ID NOS.:188-374;

(c) a complementary polynucleotide comprising a complementary nucleotide sequence that is complementary to the first nucleotide sequence of (a); and

(d) a biologically active fragment of any of (a) – (c); and, wherein the nucleic acid molecule is an isolated molecule.

2. The nucleic acid molecule of claim 1, wherein the nucleic acid molecule is chosen from a cDNA molecule, a genomic DNA molecule, a cRNA molecule, a siRNA molecule, an RNAi molecule, an mRNA molecule, an anti-sense molecule, and a ribozyme.

3. A second nucleic acid molecule comprising a second polynucleotide sequence that is at least about 80%, or about 90%, or about 95% homologous to the first nucleic acid molecule of claim 1.

4. The nucleic acid molecule of claim 1, further comprising its complement.

5. The nucleic acid molecule of claim 1, further comprising a second polynucleotide.

6. The nucleic acid molecule of claim 5, wherein the second polynucleotide comprises a second nucleotide sequence encoding a secretory leader, and the secretory leader is a homologous or heterologous leader.

7. The nucleic acid molecule of claim 6, wherein the secretory leader is a heterologous leader.

8. A polypeptide comprising a first amino acid sequence chosen from:

(a) SEQ ID NOS.:188-374;

(b) a sequence encoded by one of SEQ ID NOS.:1-187, 375-484; and

(c) an active fragment of (a) or (b); wherein the polypeptide is an isolated molecule.

9. The polypeptide of claim 8, wherein the polypeptide is present in a cell culture.

10. The polypeptide of claim 8, wherein the polypeptide is present in a cell culture medium.

11. The polypeptide of claim 10, wherein the cell culture is chosen from a bacterial cell culture, a mammalian cell culture, an insect cell culture, and a yeast cell culture.

12. The polypeptide of claim 8, wherein the polypeptide is present in a plant or a non-human animal.

13. The polypeptide of claim 8, further comprising a second amino acid sequence, wherein the second amino acid sequence is a secretory leader, the secretory leader is a homologous leader or a heterologous leader, and the first and second amino acid sequences are operably linked.

14. The polypeptide of claim 13, wherein the secretory leader sequence is a heterologous leader sequence.

15. The polypeptide of claim 8, consisting essentially of a secretory leader sequence.

16. The polypeptide of claim 8, consisting essentially of a mature polypeptide sequence.

17. A polypeptide comprising at least six contiguous amino acids chosen from SEQ ID NOS.:188-374 or encoded by SEQ ID NOS.:1-187,375-484.

18. A vector comprising the nucleic acid molecule of claim 1 and a promoter that regulates the expression of the nucleic acid molecule.

19. The vector of claim 18, wherein the vector is a viral vector or a plasmid.

20. The vector of claim 19, wherein the vector is a pTT vector.

21. The vector of claim 18, wherein the promoter is chosen from one that is naturally contiguous to the nucleic acid molecule and one that is not naturally contiguous to the nucleic acid molecule.

22. The vector of claim 8, wherein the promoter is chosen from an inducible promoter, a conditionally-active promoter, a constitutive promoter, and a tissue-specific promoter.

23. A recombinant host cell comprising a cell and the nucleic acid of claim 1, the polypeptide of claim 8, or the vector of claim 18.

24. The host cell of claim 23, wherein the cell is a prokaryotic cell.

25. The host cell of claim 23, wherein the cell is a eukaryotic cell.

26. The host cell of claim 25, wherein the eukaryotic cell is chosen from a human cell, a non-human mammalian cell, an insect cell, a fish cell, a plant cell, and a fungal cell.

27. The host cell of claim 26, wherein the cell is a mammalian cell.

28. An animal injected with the nucleic acid molecule of claim 1 or the polypeptide of claim 8.

29. The animal of claim 28, wherein the animal is a rodent, a non-human primate, a rabbit, a dog, or a pig.

30. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and an isolated polynucleotide, wherein the polynucleotide comprises a nucleic acid sequence chosen from SEQ ID NOS.:1-187, 375-484.

31. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and an isolated polypeptide, wherein the polypeptide comprises an amino acid sequence chosen from SEQ ID NOS.:188-374.

32. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and the vector of claim 18.

33. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and the host cell of claim 23.

34. A host cell composition comprising:

(a) a recombinant host cell;

(b) a pharmaceutically acceptable carrier; and

(c) the nucleic acid of claim 1, the polypeptide of claim 8, and/or the vector of claim 18.

35. A method of producing a recombinant host cell comprising:

(a) providing a vector comprising the nucleic acid molecule of claim 1; and

(b) allowing a cell to come into contact with the vector to form a recombinant host cell transfected with the nucleic acid molecule.

36. A method of producing a polypeptide comprising:

(a) providing the nucleic acid of claim 1; and

(b) expressing the nucleic acid molecule in an expression system to produce the polypeptide.

37. The method of claim 36, wherein the expression system is a cellular expression system.

38. The method of claim 37, wherein the cellular expression system is a prokaryotic or eukaryotic expression system.

39. The method of claim 37, wherein the expression system comprises a recombinant host cell transfected with the nucleic acid molecule, and the recombinant host cell is cultured to produce the polypeptide.

40. The method of claim 36, wherein the expression system is a cell-free expression system chosen from a wheat germ lysate expression system, a rabbit reticulocyte expression system, a ribosomal display, and an *E. coli* lysate expression system.

41. A polypeptide produced by the method of claim 36.

42. A polypeptide produced by the method of claim 39, wherein the host cell is chosen from a mammalian cell, an insect cell, a plant cell, a yeast cell, and a bacterial cell.

43. A polypeptide produced by the method of claim 36, wherin the expression system is a cell-free expression system chosen from a wheat germ lysate expression system, a rabbit reticulocyte expression system, a ribosomal display, and an *E. coli* lysate expression system.

44. An antibody or a biologically active fragment thereof specifically recognizing, binding to, and/or modulating the biological activity of at least one molecule chosen from a polypeptide encoded by a nucleic acid molecule of claim 1, a polypeptide of claim 8, and a fragment of either of these.

45. The antibody of claim 44, wherein the modulation is interference of binding to a receptor of the molecule.

46. An antibody composition comprising the antibody of claim 44 and a pharmaceutically acceptable carrier.

47. The antibody of claim 44, chosen from a polyclonal antibody, a monoclonal antibody, a single chain antibody, and an active fragment of any of these.

48. The antibody of claim 44, wherein the antibody is a fragment chosen from an antigen binding fragment, an Fc fragment, a cdr fragment, a V_H fragment, a V_C fragment, and a framework fragment.

49. A fusion molecule comprising a first polypeptide that comprises an amino acid sequence of a therapeutic molecule chosen from SEQ ID NOS.:188-374, a polypeptide encoded by a polynucleotide chosen from SEQ ID NOS.:1-187, 375-484, or a fragment of any of these, and a second polypeptide that comprises an amino acid sequence of a fusion partner.

50. The polypeptide of claim 49, wherein the fusion molecule has a higher plasma stability than the therapeutic molecule absent the fusion partner.

51. The polypeptide of claim 50, wherein the fusion partner is chosen from a polymer, a polypeptide, a succinyl group, fetuin, leucine zipper nuclear factor erythroid derivative-2 (NFE2), neuroretinal leucine zipper, tetranectin, an Fc fragment, and serum albumin.

52. A method of determining the presence of the nucleic acid molecule of one or more of SEQ ID NOS.:1-187, 375-484, or a complement thereof in a sample comprising:

(a) providing a complement to the nucleic acid molecule or providing a complement to the complement of the nucleic acid molecule;

(b) allowing the molecule to interact with the sample; and

(c) determining whether interaction has occurred.

53. A method of determining the presence of the polypeptide of one or more of SEQ ID NOS.:188-374, or fragment thereof, in a sample, comprising:

(a) providing an antibody that specifically binds to or interfere with the activity of the polypeptide;

(b) allowing the antibody to interact with the polypeptide in the sample, if any; and

(c) determining whether interaction has occurred.

54. A kit comprising the antibody or fragment thereof of claim 53 and instructions for its use.

55. A method of determining the presence of a specific antibody to a polypeptide encoded by a nucleotide of SEQ ID NOS.:1-187, 375-484, or fragment thereof; or the polypeptide of one or more of SEQ ID NOS.:188-374, or fragment thereof, in a sample, comprising:

(a) providing the polypeptide;

(b) allowing the polypeptide to interact with a specific antibody in the sample, if present; and

(c) determining whether interaction has occurred.

56. A method of inhibiting tumor growth comprising:

(a) providing a composition comprising the polypeptide chosen from any one of claims 8, 13, or 41, and an active fragment of any of these; and

(b) contacting the tumor with the composition.

57. A method of killing tumor cells, comprising contacting tumor cells with a polypeptide chosen from any one of claims 8, 13, or 41, and an active fragment of any of these.

58. The method of claim 57, wherein the tumor cells are human tumor cells.

59. The method of claim 58, wherein the tumor cells are solid tumor cells or leukemic tumor cells.

60. The method of claim 56, wherein tumor cells are chosen from a carcinoma, an adenocarcinoma, a leukemia, and a sarcoma.

61. The method of claim 58, wherein the tumor cells are breast tumor cells, colon tumor cells, lung tumor cells, bladder tumor cells, stomach tumor cells, kidney tumor cells, testicular tumor cells, endocrine tumor cells, or skin tumor cells.

62. The method of claim 58, wherein the tumor cells are prostatic tumor cells.

63. The method of claim 58, wherein the tumor cells are pancreatic tumor cells.

64. A method for treating a tumor in a subject comprising:

(a) providing a composition containing a polypeptide chosen from any one of claims 8, 13, or 41, and an active fragment of any of these; and a pharmaceutically acceptable carrier; and

(b) administering the composition to the subject.

65. A method for treating a prostate tumor in a subject comprising:

(a) providing a composition containing a polypeptide chosen from any of claims 8, 13, or 41, and an active fragment of any of these; and a pharmaceutically acceptable carrier; and

(b) administering the composition to the subject.

66. A method for treating a pancreatic tumor in a subject comprising:

(a) providing a composition containing a polypeptide chosen from any of claims 8, 13, or 41, and an active fragment of any of these; and a pharmaceutically acceptable carrier; and

(b) administering the composition to the subject.

67. A pharmaceutical composition comprising:

(a) a polypeptide encoded by a nucleotide of SEQ ID NOS.:1-187, 375-484, or fragment thereof; or the polypeptide of one or more of SEQ ID NOS.:188-374, or fragment thereof;

(b) an anti-cancer agent; and

(c) a pharmaceutically acceptable carrier.

68. The pharmaceutical composition of claim 67, wherein the anti-cancer agent is chosen from a chemotherapeutic agent, a radiotherapeutic agent, an anti-angiogenic agent, and an apoptosis-inducing agent.

69. The pharmaceutical composition of claim 68, wherein the chemotherapeutic agent is chosen from a steroid, a cytokine, a cytosine arabinoside, fluorouracil, methotrexate, aminopterin, an anthracycline, mitomycin C, a vinca alkaloid, an antibiotic, demecolcine, etoposide, mithramycin, chlorambucil, and melphalan.

70. A method of treating a tumor in a subject comprising:

(a) providing a first composition comprising polypeptide encoded by a nucleotide of SEQ ID NOS.:1-187, 375-484, or fragment thereof; or the

polypeptide of one or more of SEQ ID NOS.:188-374, or fragment thereof;

(b) providing a second composition comprising an anti-cancer agent different from the polypeptide of (a); and

(c) administering the first and second compositions to the subject.

71. The method of claim 70, wherein the second composition comprises a monoclonal antibody composition or a chemotherapeutic agent or another polypeptide.

72. The method of claim 70, wherein the tumor is a prostate tumor.

73. The method of claim 70, wherein the tumor is a pancreatic tumor.

74. A method of treating an immune disease in a subject comprising:

(a) providing a first composition comprising polypeptide encoded by a nucleotide of SEQ ID NOS.:1-187, 375-484, or fragment thereof; or the polypeptide of one or more of SEQ ID NOS.:188-374, or fragment thereof;

(b) providing a second composition comprising an agent effective in treating an immune disease different from the polypeptide of (a); and

(c) administering the first and second compositions to the subject.

75. The method of claim 74, wherein the second composition comprises a monoclonal antibody composition or a chemotherapeutic agent or another polypeptide.

76. A method of treating a metabolic disease in a subject comprising:

(a) providing a first composition comprising polypeptide encoded by a nucleotide of SEQ ID NOS.:1-187, 375-484, or fragment thereof; or the polypeptide of one or more of SEQ ID NOS.:188-374, or fragment thereof;

(b) providing a second composition comprising an agent effective in treating a metabolic disease different from the polypeptide of (a); and

(c) administering the first and second compositions to the subject.

77. The method of claim 76, wherein the second composition comprises a monoclonal antibody composition or a chemotherapeutic agent or another polypeptide.

78. A method of treating a degenerative disease in a subject comprising:

(a) providing a first composition comprising polypeptide encoded by a nucleotide of SEQ ID NOS.:1-187, 375-484, or fragment thereof; or the polypeptide of one or more of SEQ ID NOS.:188-374, or fragment thereof;

(b) providing a second composition comprising an agent effective in treating a degenerative disease different from the polypeptide of (a); and

(c) administering the first and second compositions to the subject.

79. The method of claim 78, wherein the second composition comprises a monoclonal antibody composition or a chemotherapeutic agent or another polypeptide.